

South Coast Air Quality Management District

Facility Prioritization Procedures For AB 2588 Program

March 2011

TABLE OF CONTENTS

I.	INTRODUCTION	1
II	FACILITY PRIORITIZATION PROCEDURE	1
	A. Calculation of Cancer Score	2
	B. Calculation of Non-Cancer Score	4
	C. Facility Ranking	6
III.	REFERENCES	12

I. INTRODUCTION

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (commonly known as AB 2588) established a statewide program for the inventory of air toxics emissions from individual facilities as well as requirements for risk assessment and public notification of potential health risks. AB 2588 requires the South Coast Air Quality Management District (AQMD) to designate high, intermediate and low priority categories and include each facility within the appropriate category based on its individual priority. In establishing priorities, the AQMD is to consider the potency, toxicity, quantity and volume of hazardous materials released from the facility; the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites and residences; and any other factors that the AQMD finds and determines may indicate that the facility may pose a significant risk to receptors.

II. FACILITY PRIORITIZATION PROCEDURE

This document describes the facility prioritization procedure utilized by the AQMD. The procedure is based on the Emissions and Potency Procedure recommended by the Facility Prioritization Guidelines of the AB 2588 Risk Assessment Committee of the California Air Pollution Control Officers Association (CAPCOA, 1990). However, the CAPCOA procedure primarily relies on three parameters to prioritize facilities: emissions, potency or toxicity, and the proximity to potential receptors. The AQMD refined the CAPCOA procedure to include adjustment factors for receptor proximity, exposure period, and averaging times in addition to the treatment of multi-pathway pollutants. The AQMD Board adopted the refined prioritization procedure on September 1990. This document supersedes the August 2004 Version to accommodate the use of cancer potency factors (instead of unit risk factors) to allow for daily breathing rate and body weight variations as well as revised multi-pathway factors for resident and workers. Basically, a facility receives two scores: one for carcinogenic (cancer) effects and the other for non-cancer effects. The facility is then ranked based on the higher of these two scores. Three categories are used in the ranking: high priority (Category A), intermediate priority (Category B) and low priority (Category C). Based on the Total Facility Score (TS), facilities designated as high priority are required to submit Heath Risk Assessments to assess the risk to their surrounding community. Facilities ranked with intermediate priority are considered to be District tracking facilities, which are then required to submit complete toxics inventory once every four years. Facilities ranked with low priority are exempt from reporting. The following table summarizes thresholds used to prioritize facilities:

Table - 1

Total Facility Score (TS)	Category
TS > 10	High Priority
$1 < TS \le 10$	Intermediate Priority
TS ≤ 1	Low Priority

A. Calculation of Cancer Score

The facility scores for residential and worker cancer effects are calculated as follows:

$$TS = \{ \sum (E_c) (CP_c) (10^{-6}) (MP_c) \} (AF_{ann}) (DBR) (RP) (EVF) (1700) \}$$

Where;

TS = Total facility score, the sum of score for all carcinogens (cancer causing compounds)

c = Specific carcinogen

E_c = Annual emissions of carcinogen, c (lbs/year)

CP_c = Cancer potency of carcinogen substance, c (mg/kg-day)⁻¹

10⁻⁶ = Micrograms to milligrams conversion, liters to cubic meters conversion

MP_c = Multi-pathway adjustment factor of carcinogen, c; there are separate multi-pathway factors for residence and worker; see Table 8A of the Risk Assessment Procedures for Rules 1401 and 212

 AF_{ann} = Annual concentration adjustment factor; AF_{ann} = 1 for residential exposure; see Tables 2C and 3C of the Risk Assessment Procedures for Rules 1401 and 212 for worker exposure

DBR = Daily breathing rate (L/kg-day); see Table 9A of the Risk Assessment Procedures for Rules 1401 and 212

RP = Receptor proximity adjustment factor

EVF = Exposure value factor; see Table 9B of the Risk Assessment Procedures for Rules 1401 and 212

1700 = Normalization factor

Annual Emissions:

Annual emissions of carcinogens are taken from the Facility Summary Forms TACS and TACS-O of the Annual Emission Reporting (AER) Program. Each toxic substance has a degree of accuracy associated with them which is nothing more than a de minimis emission level for reporting. As a result, facility-wide emissions of toxics greater than one-half of their corresponding degree of accuracy are inventoried and reported. Conversely, total facility toxic emissions less than one-half of their corresponding degree of accuracy levels are not considered in the computation. The substances and associated degree of accuracy levels are listed in Table 3.

Cancer Potency:

The Cancer Potency factor (CP) is a measure of the cancer potency of a carcinogen. The cancer potency factor is the estimated probability that a person will contract cancer as a result of a daily inhalation of 1 milligram of the TAC per kilogram of body weight continuously over a period of 70 years.

The cancer potency factors used in these procedures are published by the Office of Environmental Health Hazard Assessment (OEHHA). The latest CP values can be obtained from the following website:

(http://www.arb.ca.gov/toxics/healthval/contable.pdf)

Multi-pathway Adjustment Factor:

The multi-pathway (MP_c) adjustment factor is used for cancer causing substances that may contribute to risk from exposure pathways other than inhalation. These substances deposit on the ground in particulate form and contribute to risk through ingestion of soil or backyard garden vegetables or through other routes. This factor is used to account for additional risks from exposure through non-inhalation pathways. The MP_c adjustment factors for specific cancer causing compounds have been developed by AQMD staff and are taken from the AQMD Risk Assessment Procedures for Rules 1401 and 212 (Table 8A). There are separate MP_c adjustment factors for worker and residents. For all other cancer causing compounds, the MP_c adjustment factor is set to one. The AQMD Risk Assessment Procedures for Rules 1401 and 212 can be obtained from the following web site: www.aqmd.gov/permit/RiskAssessment.html

Annual Concentration Adjustment Factor (AF_{ann}):

 AF_{ann} adjusts dispersion factors, which are 24 hours per day and 7 days per week averages, to an average for off-site worker exposure period (i.e.; 8 hours per day and 5 days per week). AF_{ann} for residential exposure is set to one, and AF_{ann} for worker exposure is taken from the AQMD Risk Assessment Procedures for Rules 1401 and 212 (Tables 2C and 3C). Table 2C is used for exposures of 12 hours per day or less, while Table 3C is used for exposures of more than 12 hours per day.

Daily Breathing Rate (DBR) Values:

Exposure to airborne chemicals occurs through inhalation and subsequent absorption into the body, potentially resulting in adverse health effects depending on toxicological properties of the chemical and concentration in air. The dose of a substance through inhalation is a function of the concentration of the substance and the amount of air inhaled. DBR values used in these procedures, expressed in liters per kilogram-day (L/kg-day), are recommended by OEHHA and were developed based on results from several breathing rate studies. The appropriate DBR values can be selected from the AQMD Risk Assessment Procedures for Rules 1401 and 212 (Table 9A).

Receptor Proximity Adjustment Factor:

The Receptor Proximity (RP) adjustment factor is calculated based on the distances from the facility to the nearest residence and the nearest worksite or commercial site. Receptor locations are off-site locations where persons may be exposed to toxic emissions from equipment. Residential receptor locations include current residential land uses and areas that may be developed for residential uses in the future, given land use trends in the general area. The residential receptor distance is defined as the closest distance between any source of air toxic emissions at the facility and the property boundary of any one of the residential receptor locations. Commercial receptor locations include areas zoned for

manufacturing, light or heavy industry, retail activity, or locations that are regular work sites. For facilities with a single source, the receptor distance is from the stack or the center of the source (e.g., center of the building containing a source or sources) to the nearest receptor location. For facilities with many sources, the receptor distance is from the approximate center of the area containing the sources to the nearest receptor location. The receptor distances are taken from the facility's Form X. A distance of 50 meters is assumed for a facility without specified receptor distances corresponding to the highest adjustment factor.

The RP adjustment factor is calculated from the following table:

Receptor Proximity (R in m) Adjustment Factor (RP) 0 < R < 501.000 50 < R < 100-0.015 R + 1.75100 < R < 250-0.0014 R + 0.39250 < R < 5000.040 500 < R < 10000.011 1000 < R < 15000.003 1500 < R < 20000.002 2000 < R0.001

Table - 2

Exposure Value Factor:

The Exposure Value Factor (EVF) is based on the receptor type and/or location, exposure frequency (EF), which is the number of days per year of exposure, and the averaging time period in days over which exposure is averaged (AT). A 70 year lifetime exposure is assumed for all receptor locations except for off-site worker (i.e.; receptor locations in commercial or industrial areas), for which a 40 year lifetime exposure is assumed. For EF, OEHHA recommends use of 350 days/year for residential exposure and 245 days/year for worker exposure. For AT, OEHHA recommends the use of 25,550 days (70 years x 365 days/year). The appropriate EVF can be selected from the AQMD Risk Assessment Procedures for Rules 1401 and 212 (Table 9B).

B. Calculation of Non-Cancer Score

For a toxic substance, non-cancer health effects can occur via acute and/or chronic exposure and both of these non-cancer effects are used in the facility prioritization. For each substance associated with both acute and chronic toxicity, the AQMD calculates separate scores using the formulas shown below and then uses only the higher of the two scores (one for acute toxicity and one for chronic toxicity).

Non-Cancer Chronic Score:

For a facility which emits pollutants with known non-cancer chronic health effects, its scores for residential and worker non-cancer effects are calculated as follows:

$$TS^* = \sum \{ (E_t (MP_t) / REL_t \} (RP) (150) \}$$

Where;

TS* = Total facility score, the sum of score for all substances with non-cancer effects

t = Toxic substance

 E_t = Average hourly emissions of substance, t (lbs/hr)

 REL_t = Reference exposure level of substance, t (ug/m³)

MPt = Multi-pathway adjustment factor of non-cancer chronic substance, t; there are separate multi-pathway factors for residence and worker; see Table 8A of the Risk Assessment Procedures for Rules 1401 and 212

RP = Receptor proximity adjustment factor

150 = Normalization factor

Non-Cancer Acute Score:

For a facility which emits pollutants with known non-cancer acute health effects, its score for non-cancer effects is calculated as follows:

$$TS^* = \sum \{ (E_t) / REL_t \} (RP) (1500)$$

Where;

TS* = Total facility score, the sum of score for all substances with non-cancer effects

t = Toxic substance

 E_t = Maximum hourly emissions of substance, t (lbs/hr)

 REL_t = Reference exposure level of substance, t (ug/m³)

RP = Receptor proximity adjustment factor

1500 = Normalization factor

Average and Maximum Hourly Emissions:

Two different emissions rates are required for calculating the facility score for non-cancer health effects. The methodology for calculating the non-cancer score for chronic exposure requires average hourly emissions (lbs/hr) for each emitted pollutant whereas calculation of the non-cancer score for acute exposure requires maximum hourly emissions (lbs/hr) for each emitted pollutant. Average hourly emission is obtained by dividing the pollutant annual emissions (lbs/yr) by 8760 hours. Maximum hourly emission is obtained by dividing the pollutant annual emissions (lbs/yr) by the facility's actual operating hours which is then multiplied by maximum hourly emission adjustment factor of 1.25. Annual emissions are taken from the Facility Summary Forms TACS and TACS-O of the AER Program. As specified in Section II.A, emissions of specified substances, which are below one-half of their corresponding degree of accuracy levels are neglected in the computation.

Reference Exposure Levels:

Reference exposure level (REL) is used as an indicator of potential adverse non-cancer health effects, and refers to a concentration level (ug/m³) or dose (mg/kg-day) at which no adverse health effects are anticipated.

The RELs used in these procedures are published by OEHHA. The latest REL values can be obtained from the following website:

(http://www.arb.ca.gov/toxics/healthval/contable.pdf)

Multi-pathway Adjustment Factor:

The multi-pathway (MP_t) adjustment factor is used for chronic substances that may contribute to risk from exposure pathways other than inhalation. Similar to discussion in Section II.A, MP_t adjustment factors only exist for selected chronic pollutants which can be obtained from the AQMD Risk Assessment Procedures for Rules 1401 and 212 (Table 8A). There are separate MP factors for worker and residents. For all other non-cancer chronic health effects compounds, the MP_t adjustment factor is set to one (1.0).

Receptor Proximity Adjustment Factor:

The Receptor Proximity (RP) adjustment factor is calculated based on the distances from the facility to the nearest residence and the nearest worksite. This is the same adjustment factor used in the calculation of the facility cancer score discussed in Section II.A.

C. Facility Ranking

From the computed scores for cancer and non-cancer effects, the total facility score is taken as the higher of the two scores, and serves as the basis for ranking a facility as follows:

- The facility is in the high category (Category A) if its highest score is greater than or equal to 10;
- The facility is in the intermediate category (Category B) if its highest score is greater than or equal to 1 but less than 10; and,
- The facility is in the low category (Category C) if its highest score is less than 1.

Table - 3: DeMinimis Reporting Limits for Toxics

TAC Code	CAS Number	Substance	Degree of Accuracy (lbs/yr)
29	75070	Acetaldehyde	20
30	107028	Acrolein	0.05
31	107131	Acrylonitrile	0.1
32	7664417	Ammonia	200
14	7440382	Arsenic and Compounds (inorganic)	0.01
1	1332214	Asbestos	0.0001
2	71432	Benzene	2
3	7440417	Beryllium	0.001
4	106990	Butadiene [1,3]	0.1
5	7440439	Cadmium	0.01
6	56235	Carbon tetrachloride	1
33	463581	Carbonyl sulfide	100
34	7782505	Chlorine	0.5
35	67663	Chloroform	10
13	18540299	Chromium, hexavalent (and compounds)	0.0001
36	7440508	Copper	0.1
37	7631869	Crystalline silica	0.1
38	117817 1080	Di(2-ethylhexyl) phthalate {DEHP} Chlorinated dioxins and dibenzofurans	0.000001
7	67562394 55673897 35822469 70648269 57117449 72918219 60851345 39227286 57653857 19408743 39001020 3268879 57117416 57117314 40321764	1,2,3,4,6,7,8-Heptachlorodibenzofuran [POM] 1,2,3,4,7,8,9-Heptachlorodibenzofuran [POM] 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [POM] 1,2,3,4,7,8-Hexachlorodibenzofuran [POM] 1,2,3,6,7,8-Hexachlorodibenzofuran [POM] 1,2,3,7,8,9-Hexachlorodibenzofuran [POM] 2,3,4,6,7,8-Hexachlorodibenzofuran [POM] 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [POM] 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [POM] 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [POM] 1,2,3,4,5,6,7,8-Octachlorodibenzofuran [POM] 1,2,3,7,8-Pentachlorodibenzofuran [POM] 2,3,4,7,8-Pentachlorodibenzofuran [POM] 1,2,3,7,8-Pentachlorodibenzofuran [POM] 1,2,3,7,8-Pentachlorodibenzofuran [POM]	0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001 0.000001
27 28 72 39 8 40	51207319 1746016 78875 542756 9901 131113 123911 100414	2,3,7,8-Tetrachlorodibenzofuran [POM] 2,3,7,8-Tetrachlorodibenzo-p-dioxin {TCDD} [POM] 1,2-Dichloropropane {Propylene dichloride} 1,3-Dichloropropene Diesel exhaust particulates Dimethyl phthalate 1,4-Dioxane Ethyl benzene	0.000001 0.000001 20 10 0.1 50 5 200
9	106934	Ethylene dibromide {1,2-Dibromoethane}	0.5

Table - 3: DeMinimis Reporting Limits for Toxics

TAC Code	CAS Number	Substance	Degree of Accuracy (lbs/yr)
10	107062	Ethylene dichloride {1,2-Dichloroethane}	2
11	75218	Ethylene oxide	0.5
	1104	Fluorocarbons (chlorinated)	1
22	76131	Chlorinated fluorocarbon {CFC-113}	1
	75434	Dichlorofluoromethane {Freon 12}	1
	75694	Trichlorofluoromethane {Freon 11}	1
12	50000	Formaldehyde	5
	1115	Glycol ethers and their acetates	100
	111466	Diethylene glycol	100
	111966	Diethylene glycol dimethyl ether	100
	112345	Diethylene glycol monobutyl ether	100
	111900	Diethylene glycol monoethyl ether	100
	111773	Diethylene glycol monomethyl ether	100
	25265718	Dipropylene glycol	100
	34590948	Dipropylene glycol monomethyl ether	100
	629141	Ethylene glycol diethyl ether	100
41	110714	Ethylene glycol dimethyl ether	100
	111762	Ethylene glycol monobutyl ether	200
	110805	Ethylene glycol monoethyl ether	50
	111159	Ethylene glycol monoethyl ether acetate	100
	109864	Ethylene glycol monomethyl ether	10
	110496	Ethylene glycol monomethyl ether acetate	200
	2807309	Ethylene glycol monopropyl ether	100
	107982	Propylene glycol monomethyl ether	200
	108656	Propylene glycol monomethyl ether acetate	100
	112492	Triethylene glycol dimethyl ether	100
42	118741	Hexachlorobenzene	0.1
	608731	Hexachlorocyclohexanes	0.05
43	319846	alpha-Hexachlorocyclohexane	0.1
	319857	beta-Hexachlorocyclohexane	0.1
	58899	Lindane {gamma-Hexachlorocyclohexane}	0.1
44	110543	Hexane	200
45	302012	Hydrazine	0.01
46	7647010	Hydrochloric acid	20
73	7664393	Hydrogen fluoride (hydrofluoric acid)	50
47	7783064	Hydrogen sulfide	5
	1125	Isocyanates and diisocyanates	0.05
	822060	Hexamethylene-1,6-diisocyanate	0.05
4.5	624839	Methyl isocyanate	1
48	101688	Methylene diphenyl diisocyanate {MDI} [POM]	0.1
	1204	Toluene diisocyanates	0.1
	584849	Toluene-2,4-diisocyanate	0.1
	91087	Toluene-2,6-diisocyanate	0.1
15	7439921	Lead compounds (inorganic)	0.5

Table - 3: DeMinimis Reporting Limits for Toxics

TAC Code	CAS Number	Substance	Degree of Accuracy (lbs/yr)
49	7439965	Manganese	0.1
		Mercury and mercury compounds	
	7487947	Mercuric chloride	1
50	7439976	Mercury	1
	593748	Methyl mercury {Dimethylmercury}	1
51	67561	Methanol	200
52	74873	Methyl chloride {Chloromethane}	20
23	71556	Methyl chloroform {1,1,1-Trichloroethane}	1
53	78933	Methyl ethyl ketone {2-Butanone}	200
54	108101	Methyl isobutyl ketone {Hexone}	20
55	1634044	Methyl tert-butyl ether	200
16	75092	Methylene chloride {Dichloromethane}	50
17	7440020	Nickel	0.1
57	106467	P-Dichlorobenzene {1,4-Dichlorobenzene}	5
	1151	PAHs, total, w/o individ. components reported [PAH, POM]	0.2
	83329	Acenaphthene [PAH, POM]	1
	208968	Acenaphthylene [PAH, POM]	1
	120127	Anthracene [PAH, POM]	1
	56553	Benz[a]anthracene [PAH, POM]	0.5
	50328	Benzo[a]pyrene [PAH, POM]	0.05
	205992	Benzo[b]fluoranthene [PAH, POM]	0.5
	192972	Benzo[e]pyrene [PAH, POM]	0.5
	191242	Benzo[g,h,i]perylene [PAH, POM]	0.5
	205823	Benzo[j]fluoranthene [PAH, POM]	0.5
	207089	Benzo[k]fluoranthene [PAH, POM]	0.5
	218019	Chrysene [PAH, POM]	1
19	53703	Dibenz[a,h]anthracene [PAH, POM]	0.1
	192654	Dibenzo[a,e]pyrene [PAH, POM]	0.05
	189640	Dibenzo[a,h]pyrene [PAH, POM]	0.001
	189559	Dibenzo[a,i]pyrene [PAH, POM]	0.001
	191300	Dibenzo[a,l]pyrene [PAH, POM]	0.001
	206440	Fluoranthene [PAH, POM]	0.5
	86737	Fluorene [PAH, POM]	0.5
	193395	Indeno[1,2,3-cd]pyrene [PAH, POM]	0.5
	91576	2-Methyl naphthalene [PAH, POM]	1
	91203	Naphthalene [PAH, POM]	0.1
	198550	Perylene [PAH, POM]	0.5
	85018	Phenanthrene [PAH, POM]	0.5
	129000	Pyrene [PAH, POM]	0.5
56	1336363	PCBs (Polychlorinated biphenyls) [POM]	0.01
58	87865	Pentachlorophenol	10
18	127184	Perchloroethylene {Tetrachloroethene}	5
59	7723140	Phosphorus	0.1

Table - 3: DeMinimis Reporting Limits for Toxics

TAC Code	CAS Number	Substance	Degree of Accuracy (lbs/yr)
60		Phosphorous compounds	
	7803512	Phosphine	0.01
	7664382	Phosphoric acid	50
	10025873	Phosphorus oxychloride	0.1
	10026138	Phosphorus pentachloride	0.1
	1314563	Phosphorus pentoxide	0.1
	7719122	Phosphorus trichloride	0.1
	126738	Tributyl phosphate	100
	78400	Triethyl phosphine	100
	512561	Trimethyl phosphate	100
	78308	Triorthocresyl phosphate [POM]	0.5
	115866	Triphenyl phosphate [POM]	100
	101020	Triphenyl phosphite [POM]	100
		POMS and PAH-derivatives	
	226368	Dibenz[a,h]acridine [POM]	0.5
	224420	Dibenz[a,j]acridine [POM]	0.5
	194592	7H-Dibenzo[c,g]carbazole	0.05
	57976	7,12-Dimethylbenz[a]anthracene [PAH-Derivative, POM]	0.0001
	42397648	1,6-Dinitropyrene [PAH-Derivative, POM]	0.001
	42397659	1,8-Dinitropyrene [PAH-Derivative, POM]	0.05
61	56495	3-Methylcholanthrene [PAH-Derivative, POM]	0.001
61	3697243	5-Methylchrysene [PAH-Derivative, POM]	0.05
	101779	4,4'-Methylenedianiline (and its dichloride) [POM]	0.1
	602879	5-Nitroacenaphthene [POM]	2
	7496028	6-Nitrochrysene [PAH-Derivative, POM]	0.001
	607578	2-Nitrofluorene [PAH-Derivative, POM]	5
	5522430	1-Nitropyrene [PAH-Derivative, POM]	0.5
	57835924	4-Nitropyrene [POM]	1
62	75569	Propylene oxide	10
63	91225	Quinoline	100
		Selenium and compounds	
64	7783075	Hydrogen selenide	0.1
04	7782492	Selenium	0.5
	7446346	Selenium sulfide	0.1
65	1310732	Sodium hydroxide	2
66	100425	Styrene	100
24	79345	1,1,2,2-Tetrachloroethane	1
		Sulfuric acid and oleum	
67	8014957	Oleum	100
67	7664939	Sulfuric acid	2
	7446719	Sulfuric trioxide	100
68	108883	Toluene	200
25	79005	1,1,2-Trichloroethane {Vinyl trichloride}	1
20	79016	Trichloroethylene	20

Table - 3: DeMinimis Reporting Limits for Toxics

TAC Code	CAS Number	Substance	Degree of Accuracy (lbs/yr)
26	95636	1,2,4-Trimethylbenzene	5
69	51796	Urethane {Ethyl carbamate}	0.1
21	75014	Vinyl chloride	0.5
	1330207	Xylenes	200
70	108383	m-Xylene	200
70	95476	o-Xylene	200
	106423	p-Xylene	200
71	75456	Chlorodifluoromethane {Freon 22}	200

III. REFERENCES

CAPCOA, 1990. Air Toxics "Hot Spots" Program – Facility Prioritization Guidelines. Prepared by the AB2588 Risk Assessment Committee of the California Air Pollution Control Officers Association, July 1990.

CAPCOA, 1993. Air Toxics "Hot Spots" Program – Revised 1992 Risk Assessment Guidelines. Prepared by the Toxics Committee of the California Air Pollution Control Officers Association, October 1993.

OEHHA, 2009. **Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values.** Prepared by Office of Environmental Health Hazard Assessment OEHHA. http://www.arb.ca.gov/toxics/healthval/contable.pdf.

SCAQMD, 2010. **Risk Assessment Procedures for Rules 1401 and 212**. Prepared by South Coast Air Quality Management District, www.aqmd.gov/permit/RiskAssessment.html.

SCAQMD, 2010. Rule 1401 - New Source Review of Toxic Air Contaminants. Prepared by South Coast Air Quality Management District.

SCAQMD, 1997. Rule 212 – Standards For Approving Permits and Issuing Public Notice. Prepared by South Coast Air Quality Management District.